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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,408	09/29/2003	Guy Harles	H0659.70012US00	6508

7590 05/30/2008  
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600 Atlantic Avenue  
Boston, MA 02210

EXAMINER
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LAU, TUNG S

ART UNIT	PAPER NUMBER
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2863

MAIL DATE	DELIVERY MODE
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05/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/675,408	<b>Applicant(s)</b> HARLES, GUY	
	<b>Examiner</b> TUNG S. LAU	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-22,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 13-22,25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/30/2008, 05/02/2008</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/30/2008 has been entered.

### ***Election/Restrictions***

2. Claims 13-22 and 25-26 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention as noted election without traverse on 07/19/2007.

### **Information Disclosure Statement**

3. Information Disclosure Statement filed on 04/30/2008 is acknowledged by the examiner; A copy of a signed PTO-1449 or PTO/SB/08 attached with this office action.

The information disclosure statement filed 05/02/2008 fails to fully comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the information, of each patent,

publication, or other information listed that is not in the English language. The concise explanation may be either separate from applicant's specification or incorporated therein. See Item JP H9-223997 and JP 2000-131413 in the Foreign Patent Document section. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purpose of determining compliance with the requirements based on the time of filing the statement, including all certification requirements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1, 6, 11, 12, 3, 4, 5, 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enge Per, and Walter Todd (W0 96/22546, Publication 25 July, 1996) in view of Gross (U.S. Patent 6,556,809, filed Nov. 22, 1999).

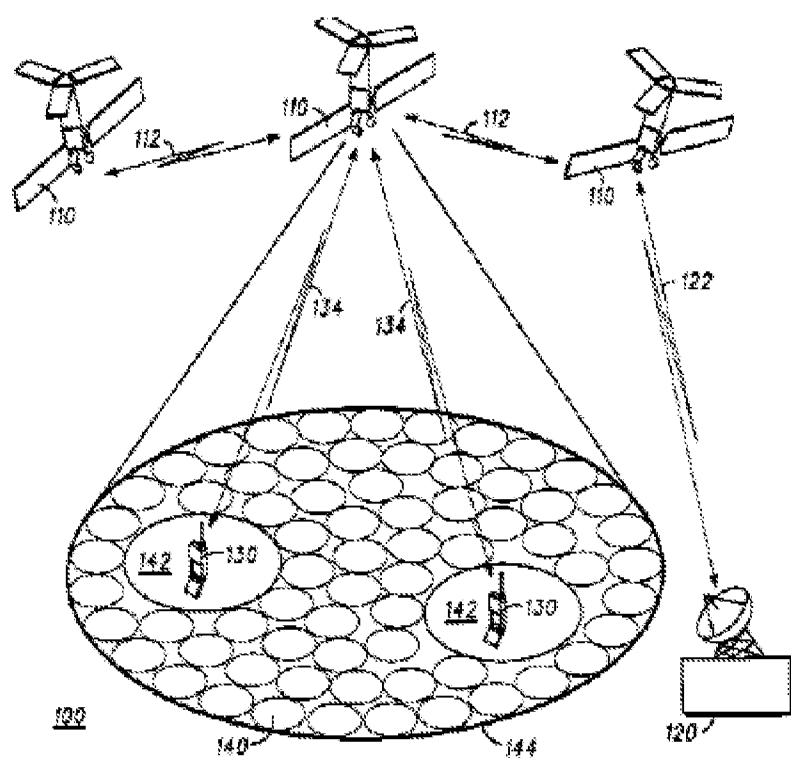
**Regarding claim 1:**

Enge Per, and Walter Todd describes system for providing a common time base between different locations on earth (fig. 1, 106, 112), comprising: a first spacecraft (fig. 1, 106, 112) carrying a first component of a communication channel (fig. 3), wherein the position of said first spacecraft is known (fig. 3), a plurality of receiving stations at different locations on earth (fig. 1, 102, 108, page 6, 21, 22), wherein each receiving station is adapted to receive a first reference signal from said first component (page 21-23), synchronisation means adapted to provide a synchronised time base between the plurality of receiving stations (page 6, 21-23), and correction means adapted to correct the synchronisation error of the synchronised time base by the known position of the first spacecraft (Sat 1A) and in accordance with the propagation time of each received first reference signal (page 21-24), wherein at least one receiving station comprises a correlation receiver yielding a correlation gain for receiving the first reference signal (page 21-24).

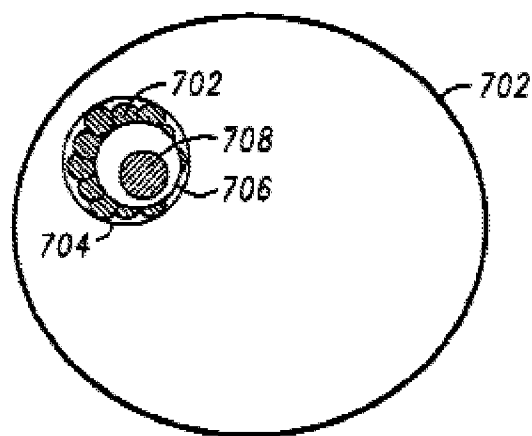
Enge Per, and Walter Todd do not describes wherein the first spacecraft transmits in a main narrow spot beam and wherein the correlation receiver is suitable for receiving the first reference signal outside the main narrow spot beam of the first spacecraft.

Gross describes wherein the first spacecraft transmits in a main narrow spot beam and wherein the correlation receiver is suitable for receiving the first reference signal outside the main narrow spot beam of the first spacecraft (fig. 1,

7, col. 8, lines 27-46) in order to reduce sidelobe levels in the system (col. 8, lines 43-46).



**FIG. 1**



**FIG. 7**

Regarding claim 6:

Enge Per, and Walter Todd describes method for providing a common time base between different locations on earth with the aid of a first spacecraft (fig. 1, 106, 112) carrying a first component of a communication channel (fig. 3), wherein the position of said first spacecraft is known (fig. 3), comprising the steps of: receiving a first reference signal from said first component by a plurality of receiving stations at different locations on earth (fig. 1, 102, 108, page 6, 21, 22), providing a synchronised time base between the plurality of receiving stations (fig. 1, 102, 108, page 6, 21, 22), and correcting the synchronisation error of the synchronised time base by the known position of the first spacecraft (page 21-23) and in accordance with the propagation time of each received first reference signal (page 21-23), wherein for at least one receiving station a correlation method yielding a correlation gain for receiving the first reference signal is applied (page 21-24).

Enge Per, and Walter Todd does not describes the first spacecraft transmitting in a main narrow spot beam and the correlation receiver receiving the first reference signal outside the main narrow spot beam of the first spacecraft.

Gross describes the first spacecraft transmitting in a main narrow spot beam and the correlation receiver receiving the first reference signal outside the main narrow spot beam of the first spacecraft (fig. 1, 7, col. 8, lines 27-46), in order to reduce sidelobe levels in the system (col. 8, lines 43-46).

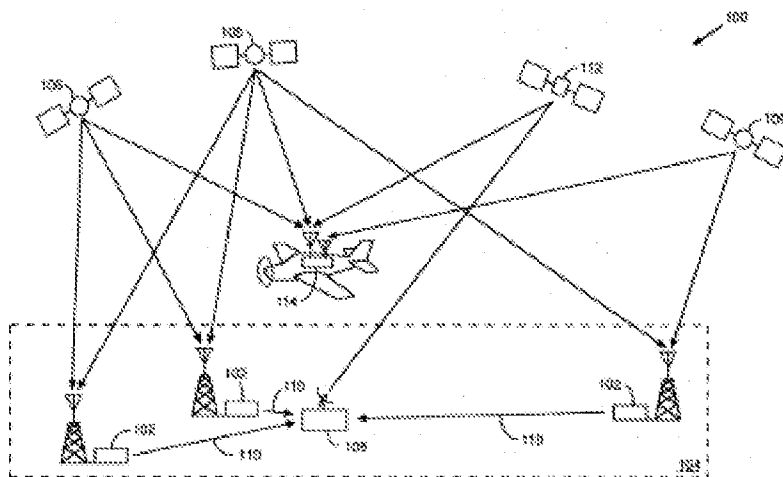


Figure 1

**Regarding claim 11:**

Enge Per, and Walter Todd describes Processing station for providing a common time base between different locations on earth with the aid of a first spacecraft (Sat 1 A) carrying a first component of a communication channel (fig. 1, 106, 112, page 6, 21-23), wherein the position of said first spacecraft is known (fig. 3), comprising: propagation time data receiving means adapted to receive propagation time data from a plurality of receiving stations at different locations on earth (fig. 1, 102, 108, page 6, 21, 22), wherein each receiving station is adapted to receive a first reference signal from said first component and wherein a synchronised time base is provided between the plurality of receiving stations (page 6, 21-23), and correction means adapted to correct the synchronisation error of the synchronised time base by the known position of the first spacecraft (page 6, 21-23) and in accordance with the propagation time of each received first reference signal (page 6, 21-23), wherein at least one receiving station



comprises a correlation receiver yielding a correlation gain for receiving the reference signal (page 21-24),

Enge Per, and Walter Todd does not describes wherein the first spacecraft transmits in a main narrow spot beam and wherein the correlation receiver is suitable for receiving the first reference signal outside the main narrow spot beam of the first spacecraft.

Gross describes wherein the first spacecraft transmits in a main narrow spot beam and wherein the correlation receiver is suitable for receiving the first reference signal outside the main narrow spot beam of the first spacecraft (fig. 1, 7, col. 8, lines 27-46), in order to reduce sidelobe levels in the system (col. 8, lines 43-46).

**Regarding claim 12:**

Enge Per, and Walter Todd describes processing method for providing a common time base between different locations on earth with the aid of a first spacecraft carrying a first component of a communication channel (fig. 1 106, 112, page 6), wherein the position of said first spacecraft is known (fig. 3), comprising the steps of: receiving propagation time data from a plurality of receiving stations at different locations on earth (fig. 1, 102, 108, page 6, 21-23), wherein each receiving station is adapted to receive a first reference signal from said first component and wherein a synchronised time base is provided between the plurality of receiving stations (page 6, 21-23), and correcting the synchronisation error of the synchronised time base by the known position of the

first spacecraft and in accordance with the propagation time of each received first reference signal (page 6, 21-23), wherein at least one receiving station comprises a correlation receiver yielding a correlation gain for receiving the reference signal (page 6, 21-23).

Enge Per, and Walter Todd does not describes the first spacecraft transmitting in a main narrow spot beam and the correlation receiver receiving the first reference signal outside the main narrow spot beam of the first spacecraft.

Gross describes the first spacecraft transmitting in a main narrow spot beam and the correlation receiver receiving the first reference signal outside the main narrow spot beam of the first spacecraft (fig. 1, 7, col. 8, lines 27-46), in order to reduce sidelobe levels in the system (col. 8, lines 43-46).

**Regarding claims 3, 8,** Enge Per, and Walter Todd describes the correlation receiver is based on the correlation of a predetermined signal pattern contained in the first reference signal (page 8-9).

**Regarding claims 4, 9,** Enge Per, and Walter Todd describes including the subject matter discussed above except based on the spread spectrum demodulation of a spread spectrum signal.

Gross describes based on the spread spectrum demodulation of a spread spectrum signal (col. 7, lines 9-16), in order to acquire the system within the area covered by the selected beamlets (col. 7, lines 9-16).

**Regarding claims 5, 10,** Enge Per, and Walter Todd describes signal.

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wherein yields a processing gain which corresponds to the correlation gain (page 12-13),

Enge Per, and Walter Todd describes does not based on the spread spectrum demodulation.

Gross describes based on the spread spectrum demodulation (col. 7, lines 9-16), in order to acquire the system within the area covered by the selected beamlets (col. 7, lines 9-16).

35 U.S.C. 103 authorizes a rejection where, to meet the claim, it is necessary to modify a single reference or to combine it with one or more other references.

After indicating that the rejection is under 35 U.S.C. 103 (in light of KSR v. Teleflex, See MPEP 706.02(j)), the examiner should set forth in the Office action:

1. the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,
2. the difference or differences in the claim over the applied reference(s),
3. the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and
4. an explanation >as to< why >the claimed invention would have been obvious to< one of ordinary skill in the art at the time the invention was made.

Enge Per, Walter Todd and Gross are analogous art because they are from the same field of endeavor, satellite communication transmission system

#### **Contact information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S. Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tung S. Lau/  
Tung S. Lau, Art Unit 2863  
Primary Examiner  
May 27, 2008